

## **A review on the effect of crumb rubber in civil engineering applications**

### **ABSTRACT**

The increasing amount of tyre waste seen each year, which corresponds to growth in vehicle demand and usage around the world. The subject of tire waste disposal has been a hot topic among researchers due to the growing amount of waste production each year, the negative influence on the environment, and the potential solutions to these issues. Because of the complexity of the structure, content, and quality of the rubber, disposing of discarded tyres is difficult. Researchers have recently become interested in crumb rubber, which is a product regenerated from tire waste after undergoing a separation process, because of its potential as a raw material in the development of construction materials that may be used to replace natural resources. Crumb rubber, depending on its quality and category, can be utilised in a variety of civil engineering projects to help make them more cost-effective and long-lasting. Further study and development of crumb rubber processing and application methods may enhance tyre waste recycling rates and, as a result, reduce environmental difficulties associated with tire waste landfilling. The primary goal of this research is to review existing crumb rubber research, particularly in terms of characteristics, processing methods, and rates of application in the construction industry. This study could serve to encourage and promote the widespread usage of crumb rubber in civil engineering projects.